

SUBJECT: Clutch Yoke 40-781 in
LA-5 and LA-6 machines.

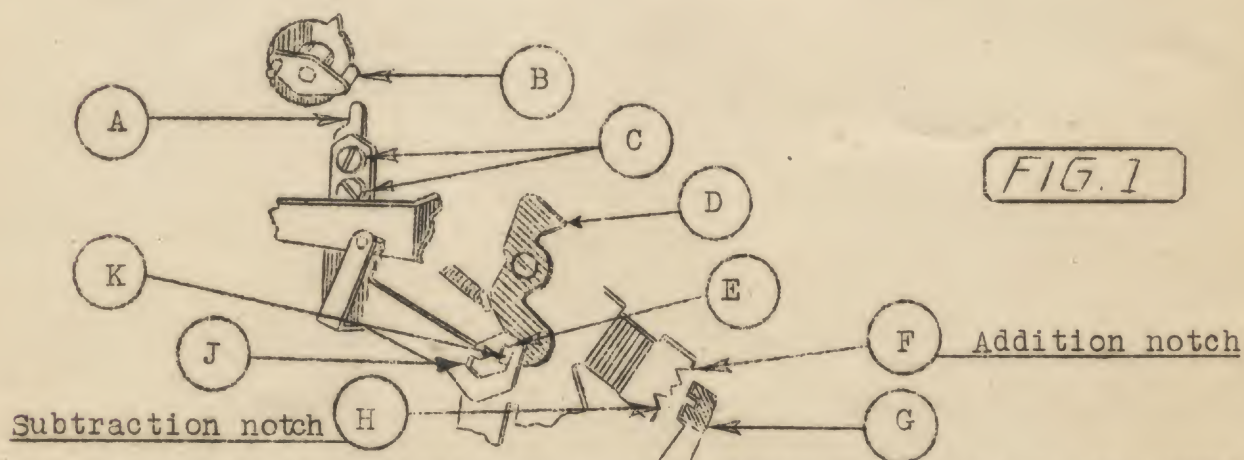
DATE: July 25, 1934

TO ALL OFFICES:

We release herewith a four plate Bulletin covering the adjustments of the 40-781 and its related mechanism. Conditions resulting from improper adjustment of these parts, are listed in the order of their most frequent occurrence together with the proper methods of correcting and testing.

Continuous Running of Machine in Addition or Subtraction

This rocking motion is caused by the failure of offset (K) to unlatch from position (J) before the clutch yoke click enters the addition notch in the clutch yoke, thereby causing the 4708 blank (A) to continue in the path of the 4757 stud (B) on the crank arm. As the cycle stopping arm returns to the bumper pad after the final tripping of the trip lever the clutch yoke fails to neutralize due to the 4757 stud (B) engaging the 4708 blank (A) and causing the clutch yoke click (G) to seat in either the addition (F) or subtraction (H) notch in the yoke resulting in the machine running continuously.



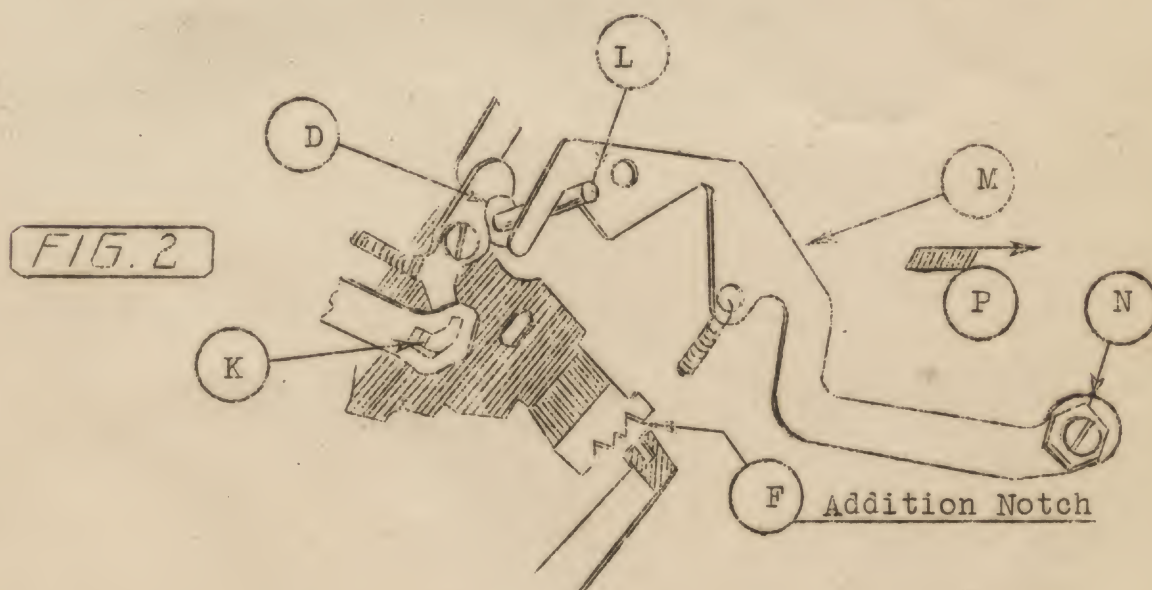
To overcome this condition adjust the 4708 blank (A) to the 4757 (B) stud by loosening screws (C) and positioning blank (A) upward, downward, forward or rearward to suit in relation to stud (B) as follows.

- 1 When offset (K) is positioned at (E) and the clutch yoke click engages either of the three notches "add, subtract or neutral," the stud (B) should not engage the 4708 blank (A)
- 2 When offset (K) is located in position (J) and the clutch yoke click (G) is in the neutral notch of the clutch yoke, stud 4757 (B) should strike the rear of blank 4708 (A) with sufficient force to position the clutch yoke click (G) in the subtraction notch (H). When click (G) is in neutral, stud (B) should strike blank (A) and cause the clutch yoke click (G) to move into the addition notch (F). When (K) is in position (J), and (G) is in either of notches (F) or (H), stud (B) should not engage (A).

NOTE- The continuous running of the machine is often the result of improper adjustment of the trip lever. If the trip lever tips are adjusted too low or too high the machine often continues to run forward or rearward after the over-carry. However this and other left hand side mechanism should be properly adjusted as instructed in Machine Service Bulletin No. 131, before attempting to adjust the clutch yoke.

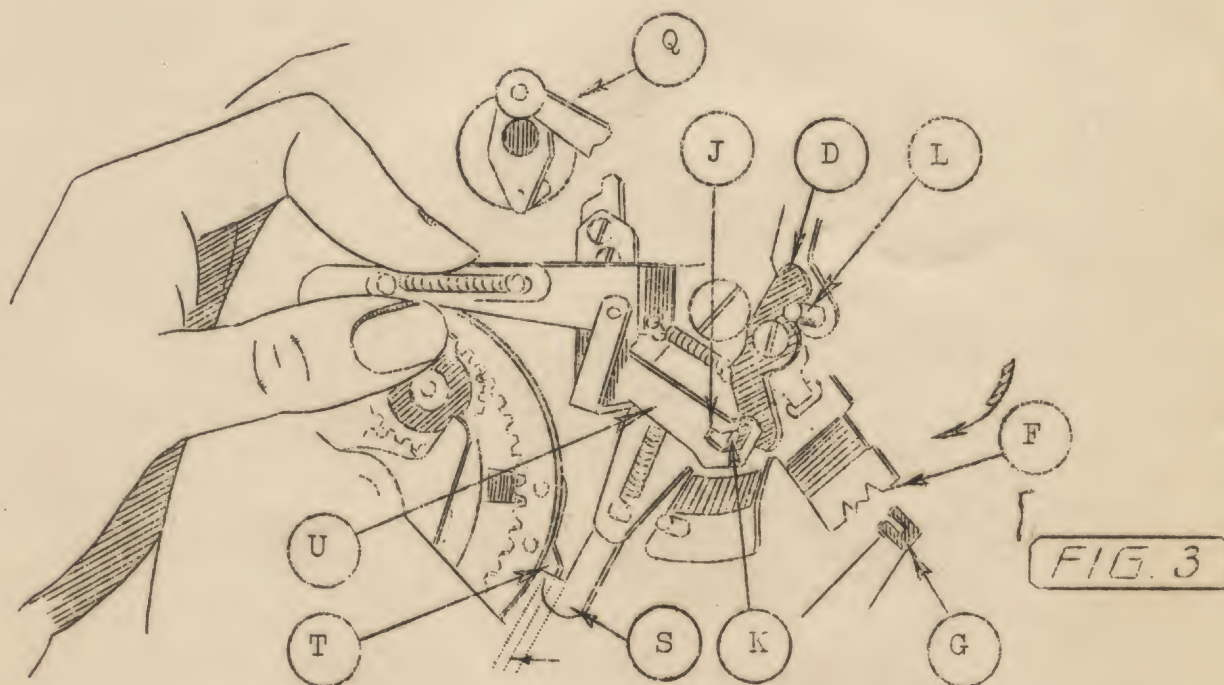
"Nines" Remaining in Lower Dials

This condition is caused by offset (K) unlatching too quickly, thereby causing the clutch yoke to neutralize instead of the clutch yoke click entering the addition notch thereby allowing the mechanism to make an addition cycle which would clear out the "nines."



This condition may be remedied by adjusting the division lever click (M) in direction of arrow (P) by means of eccentric nut (N) thereby increasing the clearance between the latch (D) and stud (L).

To test the clutch yoke mechanism proceed as follows. Rotate the motor governor until one ear (T) of planet gear arm assembly 27-726 is directly above the adding pawl (S) on the clutch yoke. Position crank arm assembly (Q) as shown below, move the division lever forward to set up the 40-716 (U), and then restore the division lever to neutral. Hold the planet gear in this position and move the clutch yoke SLOWLY into the add notch (F). While doing this, latch (D) will contact stud (L). A further movement of the clutch yoke will cause offset (K) to move slowly from the rear (J) of the slot in assembly (U). The offset (K) should not release until it is evident that the clutch yoke pawl (S) has approximately a one half hold on the ear (T) of the planet gear. Another test is to ascertain that offset (K) releases just a fraction sooner than the click (G) seats in the add notch (F). To accomplish the releasing of offset (K), eccentric nut (N), Figure 2 Plate 2, is provided. Movement of (N), Figure 2, Plate 2, will position (M), Figure 2, Plate 2, forward or rearward, thereby changing the neutral position of stud (L), against which latch (D) contacts.



Ascertain that excessive play does not exist in the left hand main carry shaft bearing #2447x1 and that when adjusting and testing the clutch yoke the throw of the yoke is balanced in both directions, otherwise a slight adjustment favoring the subtraction stroke may throw the adjustment completely off for the addition stroke.

A final test of the clutch yoke adjustments can be made as follows: With (K) positioned at (J), the trip lever (W) should be tripped and the machine turned forward with the hand crank until the cycle stopping arm (X) is positioned against the bumper pad (Y). The clutch yoke click (G) should then be positioned in neutral notch (V). When the cycle stopping arm (X) returns from the bumper pad (Y) to its neutral position, (A) should be adjusted so that (B) will locate the clutch yoke click (G) in the subtraction notch (H). There should be enough positive movement of (A) to cause the points of the notches to be carried past the clutch yoke click (G). It is advisable to have the movement of clutch yoke (Z) positive until (G) is seated in the proper notch. Ascertain that (B) does not engage (A) to the extent that the clutch yoke locks against a solid stop. With offset (K) positioned at (J), trip the trip lever (W) and turn the machine rearward with the hand crank until the cycle stopping arm (X) is positioned against the bumper pad (Y). The clutch yoke (Z) should then be in the neutral position (V). When the cycle stopping arm (X) returns from the bumper pad (Y), (B) should cam (A) so that the clutch yoke click (G) seats in the addition notch (F). This motion as nearly as possible, should be positive until (G) is seated in the proper notch, but not enough to cause the clutch yoke to lock against a solid stop.

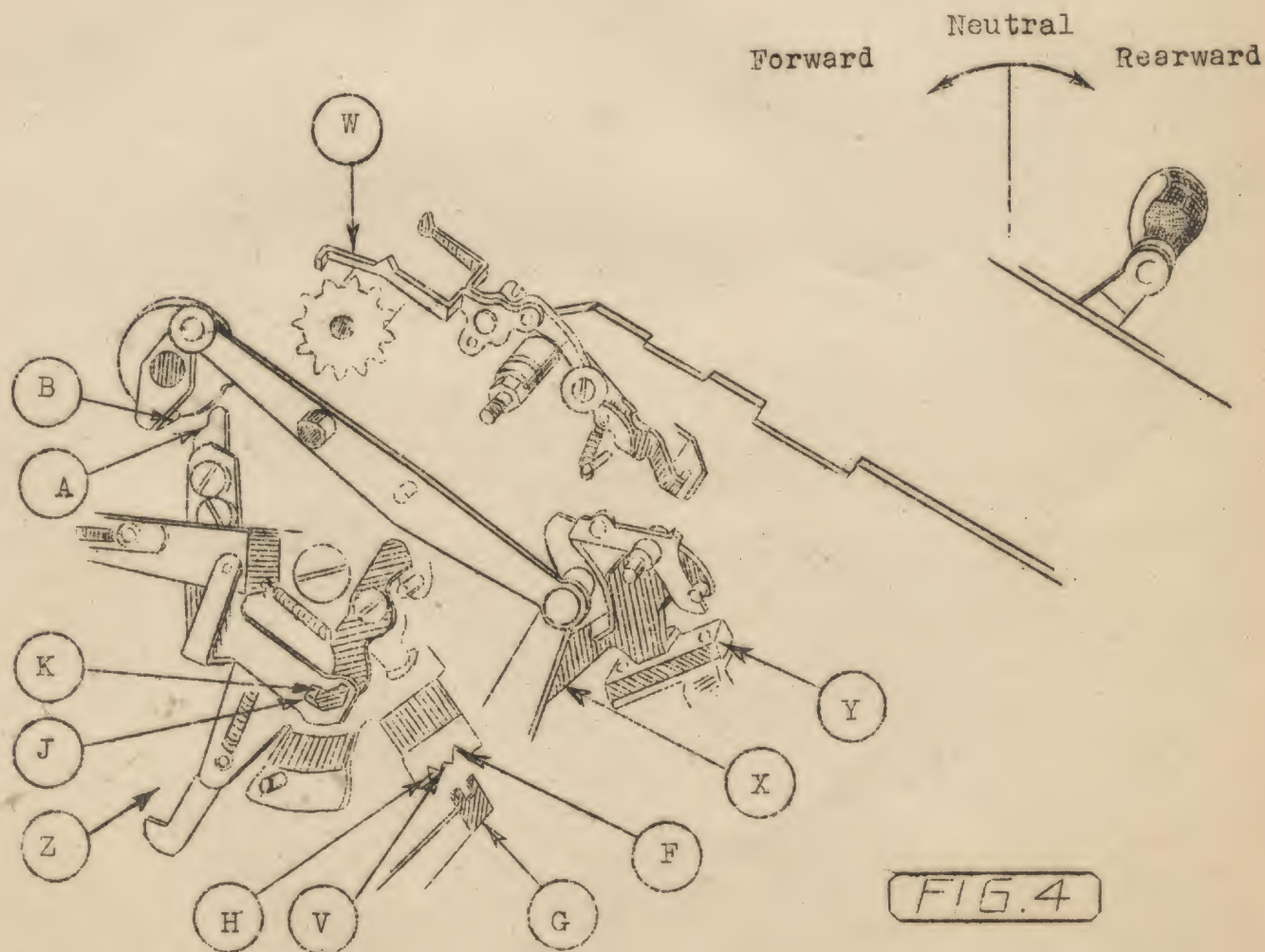


FIG. 4

F. M. Smith

FMS-TG

General Service Manager

Reprinted June 1945